

ABSTRACT OF THE DISCLOSURE

An instrumented pin member is provided that is capable of measuring bending moments, and optionally of measuring bending and axial strain in real or near real time. The instrumented pin member includes a pin member body disposed about a pin member axis, wherein the pin member body includes a bending portion. A sensing device is positioned at the pin member body within the bending portion for sensing a bending strain in the bending portion exclusive of a net axial strain, and for outputting a sensor measurement signal representative of the bending strain. A sensor measurement signal output device is provided for outputting the sensor measurement signal from the sensor device. A related system includes a plurality of pin members, among other things. Related methods also are disclosed.